

AMENDMENTS TO THE CLAIMS

1-75. (Canceled).

76. (Currently Amended) Isolated double-stranded RNA of from 21 to 23 nucleotides, in the form of two separate RNA strands which are not covalently linked, that is perfectly complementary to an mRNA to mediate RNA interference by directing cleavage of the mRNA within the region that is perfectly complementary with the isolated RNA, wherein the isolated RNA consists of naturally occurring nucleotides, and wherein the mRNA is mammalian cellular mRNA.

77. (Previously Presented) Isolated double-stranded RNA of claim 76 that comprises a terminal 3' hydroxyl group.

78. (Currently Amended) Isolated double-stranded RNA of from 21 to 23 nucleotides, which is chemically synthesized RNA in the form of two separate RNA strands which are not covalently linked, that is perfectly complementary to an mRNA to mediate RNA interference by directing cleavage of the mRNA within the region that is perfectly complementary with the isolated RNA, wherein the isolated RNA consists of naturally occurring nucleotides, and wherein the mRNA is mammalian cellular mRNA.

79-80. (Canceled).

81. (Currently Amended) A composition comprising isolated double-stranded RNA of from 21 to 23 nucleotides, in the form of two separate RNA strands which are not covalently linked, that is perfectly complementary to an mRNA to mediate RNA interference by directing cleavage of the mRNA, and an appropriate carrier, wherein cleavage is directed within the region that is perfectly complementary with the isolated RNA, wherein the isolated RNA consists of naturally occurring nucleotides, and wherein the mRNA is mammalian cellular mRNA.

82-85. (Canceled).

86. (Currently Amended) Isolated double stranded RNA of from 21 to 23 nucleotides, in the form of two separate RNA strands which are not covalently linked, that is perfectly complementary to an mRNA to mediate RNA interference by directing cleavage of the mRNA, wherein the isolated RNA is obtained from double-stranded RNA that has been enzymatically cleaved into fragments of 21 to 23 nucleotides, wherein cleavage of the mRNA is directed within the region that is perfectly complementary with the isolated RNA, wherein the isolated RNA consists of naturally occurring nucleotides, and wherein the mRNA is mammalian cellular mRNA.

87. (Previously Presented) Isolated RNA of claim 86 that comprises a terminal 3' hydroxyl group.

88. (Currently Amended) Isolated double stranded RNA of from 21 to 23 nucleotides, which is chemically synthesized RNA in the form of two separate RNA strands which are not covalently linked, that is perfectly complementary to an mRNA to mediate RNA interference by directing cleavage of the mRNA, wherein the isolated RNA is obtained from double-stranded RNA that has been enzymatically cleaved into fragments of 21 to 23 nucleotides, wherein cleavage of the mRNA is directed within the region that is perfectly complementary with the isolated RNA, wherein the isolated RNA consists of naturally occurring nucleotides, and wherein the mRNA is mammalian cellular mRNA.

89-90. (Canceled).

91. (Currently Amended) A composition comprising a carrier and comprising isolated double stranded RNA of from 21 to 23 nucleotides, in the form of two separate RNA strands which are not covalently linked, that is perfectly complementary to an mRNA to mediate RNA interference by directing cleavage of the mRNA within the region that is perfectly

complementary with the isolated RNA, wherein the isolated RNA is obtained from double-stranded RNA that has been enzymatically cleaved into fragments of 21 to 23 nucleotides, wherein the isolated RNA consists of naturally occurring nucleotides, and wherein the mRNA is mammalian cellular mRNA.

92-107. (Canceled)

108. (Previously Presented) Isolated RNA of claim 76, wherein the mRNA is human mRNA.

109. (Canceled).

110. (Currently Amended) Isolated double stranded RNA of from 21 to 23 nucleotides, in the form of two separate RNA strands which are not covalently linked, that is perfectly complementary to an mRNA to mediate RNA interference by directing cleavage of the mRNA within the region that is perfectly complementary with the isolated RNA, ~~and~~ wherein the mRNA is mammalian cellular mRNA, wherein the isolated RNA consists of naturally occurring nucleotides, and wherein one or more nucleotides of the isolated RNA are a ~~non-naturally occurring nucleotide or deoxyribonucleotide or non-standard nucleotide~~.

111-114. (Canceled).

115. (Currently Amended) Isolated RNA of any one of claims 76-78, 81, 86-88, 91, and 110; ~~and 112~~, wherein the isolated RNA is 21 nucleotides in length.

116. (Previously Presented) Isolated RNA of any one of claims 76-78, 81, 86-88, 91, and 110, wherein the isolated RNA is 22 nucleotides in length.

117. (Currently Amended) Isolated RNA of any one of claims 76-78, 81, 86-88, 91, and 110; ~~and 112~~, wherein the isolated RNA is 23 nucleotides in length.

118. (Currently Amended) Isolated RNA of claim 110-~~or 112~~, wherein the mRNA is human.

119. (Currently Amended) Isolated RNA of claim 110-~~or 112~~ that comprises a terminal 3' hydroxyl group.

120. (Currently Amended) A composition comprising an acceptable carrier and comprising the isolated RNA of claim 110-~~or 112~~.

121-129. (Canceled)

130. (Currently Amended) Isolated double-stranded RNA of 21 nucleotides, in the form of two separate RNA strands which are not covalently linked, that has sequence correspondence to an mRNA to mediate RNA interference by directing cleavage of the mRNA to which it corresponds, wherein cleavage is directed within the region of sequence correspondence with the isolated RNA, wherein the isolated RNA consists of naturally occurring nucleotides, and wherein the mRNA is mammalian cellular mRNA.

131. (Previously Presented) Isolated RNA of claim 130, that comprises a terminal 3' hydroxyl group.

132. (Previously Presented) Isolated RNA of claim 130, wherein the mRNA is human mRNA.

133. (Previously Presented) Isolated RNA of claim 131, wherein the mRNA is human mRNA.

134. (Currently Amended) Isolated double-stranded RNA of 21 nucleotides, which is chemically synthesized RNA in the form of two separate RNA strands which are not covalently

linked, that has sequence correspondence to an mRNA to mediate RNA interference by directing cleavage of the mRNA to which it corresponds, wherein cleavage is directed within the region of sequence correspondence with the isolated RNA, wherein the isolated RNA consists of naturally occurring nucleotides, and wherein the mRNA is mammalian cellular mRNA.

135. (Previously Presented) Isolated RNA of claim 134 that comprises a terminal 3' hydroxyl group.

136. (Previously Presented) Isolated RNA of claim 134, wherein the mRNA is human mRNA.

137. (Previously Presented) Isolated RNA of claim 135, wherein the mRNA is human mRNA.

138. (Currently Amended) A composition comprising isolated double-stranded RNA of 21 nucleotides, in the form of two separate RNA strands which are not covalently linked, that has sequence correspondence to an mRNA to mediate RNA interference by directing cleavage of the mRNA to which it corresponds, and an appropriate carrier, wherein cleavage is directed within the region of sequence correspondence with the RNA, wherein the isolated RNA consists of naturally occurring nucleotides, and wherein the mRNA is mammalian cellular mRNA.

139. (Previously Presented) Isolated RNA of claim 138 that comprises a terminal 3' hydroxyl group.

140. (Previously Presented) Isolated RNA of claim 138, wherein the mRNA is human mRNA.

141. (Previously Presented) Isolated RNA of claim 139, wherein the mRNA is human mRNA.

142. (Currently Amended) Isolated double stranded RNA of 21 nucleotides, in the form of two separate RNA strands which are not covalently linked, that has sequence correspondence to an mRNA to mediate RNA interference by directing cleavage of the mRNA to which it corresponds, wherein the isolated RNA is obtained from double-stranded RNA that has been enzymatically cleaved into fragments of 21 nucleotides, wherein cleavage of the mRNA is directed within the region of sequence correspondence with the isolated RNA, wherein the isolated RNA consists of naturally occurring nucleotides, and wherein the mRNA is mammalian cellular mRNA.

143. (Previously Presented) Isolated RNA of claim 142 that comprises a terminal 3' hydroxyl group.

144. (Previously Presented) Isolated RNA of claim 142, wherein the mRNA is human mRNA.

145. (Previously Presented) Isolated RNA of claim 143, wherein the mRNA is human mRNA.

146. (Currently Amended) Isolated double stranded RNA of 21 nucleotides, which is chemically synthesized RNA in the form of two separate RNA strands which are not covalently linked, that has sequence correspondence to an mRNA to mediate RNA interference by directing cleavage of the mRNA to which it corresponds, wherein the isolated RNA is obtained from double-stranded RNA that has been enzymatically cleaved into fragments of 21 nucleotides, wherein cleavage of the mRNA is directed within the region of sequence correspondence with the isolated RNA, wherein the isolated RNA consists of naturally occurring nucleotides, and wherein the mRNA is mammalian cellular mRNA.

147. (Previously Presented) Isolated RNA of claim 146 that comprises a terminal 3' hydroxyl group.

148. (Previously Presented) Isolated RNA of claim 146, wherein the mRNA is human mRNA.

149. (Previously Presented) Isolated RNA of claim 147, wherein the mRNA is human mRNA.

150. (Currently Amended) A composition comprising a carrier and comprising isolated double stranded RNA of 21 nucleotides, in the form of two separate RNA strands which are not covalently linked, that has sequence correspondence to an mRNA to mediate RNA interference of the mRNA to which it corresponds, wherein the isolated RNA is obtained from double-stranded RNA that has been enzymatically cleaved into fragments of 21 nucleotides, wherein the isolated RNA consists of naturally occurring nucleotides, wherein the mRNA is mammalian cellular mRNA.

151. (Previously Presented) Isolated RNA of claim 150 that comprises a terminal 3' hydroxyl group.

152. (Previously Presented) Isolated RNA of claim 150, wherein the mRNA is human mRNA.

153. (Previously Presented) Isolated RNA of claim 151, wherein the mRNA is human mRNA.

154. (Currently Amended) Isolated double-stranded RNA of 23 nucleotides, in the form of two separate RNA strands which are not covalently linked, that has sequence correspondence to an mRNA to mediate RNA interference by directing cleavage of the mRNA to which it

corresponds, wherein cleavage is directed within the region of sequence correspondence with the isolated RNA, wherein the isolated RNA consists of naturally occurring nucleotides, and wherein the mRNA is a human-mammalian cellular mRNA that encodes a protein whose presence in a human is associated with a disease or undesirable condition.

155. (Previously Presented) Isolated RNA of claim 154, that comprises a terminal 3' hydroxyl group.

156.-157. (Canceled)

158. (Currently Amended) Isolated double-stranded RNA of 23 nucleotides, which is chemically synthesized RNA in the form of two separate RNA strands which are not covalently linked, that has sequence correspondence to an mRNA to mediate RNA interference by directing cleavage of the mRNA to which it corresponds, wherein cleavage is directed within the region of sequence correspondence with the isolated RNA, wherein the isolated RNA consists of naturally occurring nucleotides, and wherein the mRNA is a human-mammalian cellular mRNA that encodes a protein whose presence in a human is associated with a disease or undesirable condition.

159. (Previously Presented) Isolated RNA of claim 158 that comprises a terminal 3' hydroxyl group.

160.-161. (Canceled)

162. (Currently Amended) A composition comprising isolated double-stranded RNA of 23 nucleotides, in the form of two separate RNA strands which are not covalently linked, that has sequence correspondence to an mRNA to mediate RNA interference by directing cleavage of the mRNA to which it corresponds, and an appropriate carrier, wherein cleavage is directed within the region of sequence correspondence with the RNA, wherein the isolated RNA consists of

naturally occurring nucleotides, and wherein the mRNA is a ~~human-mammalian~~ human cellular mRNA that encodes a protein whose presence in a human is associated with a disease or undesirable condition.

163. (Previously Presented) Isolated RNA of claim 162 that comprises a terminal 3' hydroxyl group.

164.-165. (Canceled)

166. (Currently Amended) Isolated double stranded RNA of 23 nucleotides, in the form of two separate RNA strands which are not covalently linked, that has sequence correspondence to an mRNA to mediate RNA interference by directing cleavage of the mRNA to which it corresponds, wherein the isolated RNA is obtained from double-stranded RNA that has been enzymatically cleaved into fragments of 23 nucleotides, wherein cleavage of the mRNA is directed within the region of sequence correspondence with the isolated RNA, wherein the isolated RNA consists of naturally occurring nucleotides, and wherein the mRNA is a human ~~mammalian~~ cellular mRNA that encodes a protein whose presence in a human is associated with a disease or undesirable condition.

167. (Previously Presented) Isolated RNA of claim 166 that comprises a terminal 3' hydroxyl group.

168.-169. (Canceled)

170. (Currently Amended) Isolated double stranded RNA of 23 nucleotides, which is chemically synthesized RNA in the form of two separate RNA strands which are not covalently linked, that has sequence correspondence to an mRNA to mediate RNA interference by directing cleavage of the mRNA to which it corresponds, wherein the isolated RNA is obtained from double-stranded RNA that has been enzymatically cleaved into fragments of 23 nucleotides,

wherein cleavage of the mRNA is directed within the region of sequence correspondence with the isolated RNA, wherein the isolated RNA consists of naturally occurring nucleotides, and wherein the mRNA is a human-mammalian cellular mRNA that encodes a protein whose presence in a human is associated with a disease or undesirable condition.

171. (Previously Presented) Isolated RNA of claim 170, that comprises a terminal 3' hydroxyl group.

172.-173. (Canceled)

174. (Currently Amended) A composition comprising a carrier and comprising isolated double stranded RNA of 23 nucleotides, in the form of two separate RNA strands which are not covalently linked, that has sequence correspondence to an mRNA to mediate RNA interference of the mRNA to which it corresponds, wherein the isolated RNA is obtained from double-stranded RNA that has been cleaved into fragments of 23 nucleotides, wherein the isolated RNA consists of naturally occurring nucleotides, wherein the mRNA is a human-mammalian cellular mRNA that encodes a protein whose presence in a human is associated with a disease or undesirable condition.

175. (Previously Presented) Isolated RNA of claim 174 that comprises a terminal 3' hydroxyl group.

176.-177. (Canceled)